We Claim:

1. A sheet-processing machine, comprising:

a conveyor for transporting processed sheets at a processing speed and for releasing the sheets for braking to a depositing speed;

a braking element for braking the released sheets to the depositing speed;

a drive for said braking element; and

a drive connection for connecting said drive to said braking element, said drive connection having an overrunning clutch; and

- a brake for retarding said braking element.
- 2. The machine according to claim 1, wherein said braking element comprises:

an endless suction belt perforated with suction openings and being revolvable during operation, said suction belt having a braking strand; and a suction box provided with a braking surface formed with suction openings and being able to be swept over by said braking strand.

- 3. The machine according to claim 2, which further comprises a brake in addition to said braking surface for temporarily retarding said braking element.
- 4. The machine according to claim 1, wherein said braking element is a rotational body.
- 5. The machine according to claim 4, wherein said rotational body constitutes a suction ring.
- 6. The machine according to claim 4, wherein said rotational body constitutes a suction roller.
- 7. The machine according to claim 1, wherein said drive connection is severable.
- 8. The sheet-processing machine according to claim 1 configured as a rotary printing press.